

## REMARKS

**Introduction.** Attorney Ewing (Reg. No. 30,630) is now prosecuting this application. He is listed on the power of attorney which is in effect in this application. He is the owner of two Australian Shepards who like to play with flying discs, he majored in Aerospace Engineering, he trained his dogs using Inventor Bloeme's videotapes before having ever met Mr. Bloeme, and this is therefore one of the applications that he takes on out of personal interest.

This Amendment and Response is filed to focus the issues and progress this application to allowance and issue. Applicants file an Information Disclosure Statement that shows a photo of a conventional Frisbee® brand flying disc with a gripping surface formed on its top side between the flight plate and the rim, but formed of continuous annular ridges and grooves.

Applicants also file four declarations. The four declarations come from people who are long-time competitors and in some cases founders of the dog and disc world. These declarations show why the gripping surfaces defined in claims 25-27 presented above are structurally different than the conventional continuous annular ridges and grooved gripping surfaces on flying discs and why those structural differences create a quantum performance leap in the real dog and disc world.

**The declarants.** Inventor Peter Bloeme has been intensively involved in the flying disc world since 1974 when he won the Junior National Frisbee Championships at age 15. (Declaration of Inventor Peter R. Bloeme, ¶12.) (hereinafter Bloeme Dec., ¶12.) In 1976, at age 19, he won the World Championships at the Rose Bowl in California. (Bloeme Dec.,

¶2.) In 1984, he and his Border Collie named Whirlin' Wizard won the 1984 World Canine Frisbee Championships. He has competed and appeared at events on many continents and on television, including on CBS Sports, on the Good Morning America Show, on the David Letterman Show, and on CNN and ESPN. (Bloeme Dec. ¶¶5-7.) Mr. Bloeme has authored two books, in 1994 and 1998, and has produced two videos about how to raise, train and compete in the dog and disc world. (Bloeme Dec., ¶¶9-10.)

Inventor Jeffrey K. Perry is also a long-term competitor in the dog and disc world, having won the 1989 Canine Disc World Championship with his dog Gilbert. (Declaration of inventor Jeffrey K. Perry ¶1.) (hereinafter Perry Dec., ¶1.) Mr. Perry has appeared on the Today Show on CNN and ESPN and for ten years was a media spokesperson for the Alpo Canine Disc Celebrity Touring Team. (Perry Dec., ¶1.) He has appeared at halftime shows with professional sports teams, and in Europe, Mexico, Puerto Rico, and Japan among other places, with his dogs. (Perry Dec., ¶3.)

Chuck Middleton has been a competitor in the dog and disc world for more than 15 years and is President of the Greater Dallas Fort Worth Dog Disc Club. (Declaration of Chuck Middleton, ¶1.) (Middleton Dec., ¶1.) He won the 2002 Sky Houndz World Canine Disc Championships. (Middleton Dec., ¶1.)

Jeff Stanaway is the current reigning World Canine Disc Champion (together with his dog). (Declaration of Jeff Stanaway, ¶2.) (Stanaway Dec., ¶2.)

**The gripping surfaces.** Mr. Bloeme and Mr. Perry designed discs with gripping surfaces according to the invention to help them perform better

in dog and disc competitions. (Bloeme Dec., ¶11; Perry Dec., ¶18.) From their decades of experience as dog and disc contest organizers, competitors, and internationally-recognized trainers, they were aware of the shortcomings of existing canine discs. (Bloeme Dec., ¶11; Perry Dec., ¶18.) They were aware, for example, that existing canine discs which featured continuous annular ridges and grooves trapped within their gripping area or surfaces, dirt and grit which acted like sandpaper and caused substantial wear on the teeth of canines that regularly caught the flying discs. (Bloeme Dec., ¶13; Perry Dec., ¶10; Application, page 2, ¶5; U.S. Publication, ¶5.)

To address this problem and others, including achieving longer flight and better aerodynamic properties, the inventors invented disc gripping surfaces which feature low profile, segmented and staggered patterns that minimize the tendency of the gripping surfaces to collect abrasive materials that can cause wear on a canine's teeth. (Bloeme Dec., ¶13; Perry Dec., ¶10; Application, page 4, ¶9; U.S. Publication, ¶9.) The depth of these gripping protrusions as well as their pattern was purposely designed to retain less dirt and foreign matter, to trap less dirt and grit than conventional discs with gripping surfaces formed of annular ridges and grooves. (Id.)

Gripping surfaces according to the present invention are also more aerodynamically efficient at least in part because of their low profile, segmented and staggered pattern which encounters the relative wind in the most aerodynamically clean way. (Bloeme Dec., ¶¶13, 15; Perry Dec., ¶¶10; 12.)

**Why the gripping surfaces matter.** These gripping surface differences matter in the dog and disc competitive world in which the

declarants have participated and excelled for so many years. In dog and disc competitions, the dog and the thrower have a short window of time in which to complete a number of cycles where the thrower throws the disc and the dog catches and returns it to the thrower. The competition has fixed boundaries left and right, outside of which the disc cannot travel. Additionally, there is a line beyond which the disc must travel before the dog catches it, in order for the cycle to count. Accordingly, throwing distance, accuracy and repeatability are very relevant properties for a disc to exhibit and here is where gripping surfaces according to the present invention excel. (Bloeme Dec., ¶17; Perry Dec., ¶14.)

Because of these realities, it is impossible to succeed in dog and disc competitions unless one can throw the disc relatively long distances with great precision and reliability, regardless of wind and other conditions. (Stanaway Dec., ¶2.)

The gripping surfaces according to the present invention promote success in dog and disc competition because they cause better throwing distance, accuracy and repeatability. (Bloeme Dec., ¶17; Perry Dec., ¶14; Stanaway Dec., ¶¶2, 8.) Discs which feature the gripping surfaces are found to travel approximately 10 to 20 percent further than other canine discs when thrown under similar conditions. (Stanaway Dec., ¶7; Application, page 9, ¶25; U.S. Publication, ¶25.) Inventor Peter Bloeme has set the light plastic canine distance record using the K-10 disc which incorporates gripping surfaces according to the invention. (Bloeme Dec. ¶18; Perry Dec. ¶15.) That record is 104.59 yards which Mr. Bloeme set with the K-10 disc in Niigata, Japan. (Id.)

Discs which feature gripping surfaces according to the invention are said to be the longest-flying canine discs made. (Middleton Dec., ¶7.) The gripping surfaces according to the invention are largely responsible for this performance by providing stabilization and aerodynamic efficiency. Middleton Dec., ¶7; Stanaway Dec., ¶7.)

Not only do discs which feature gripping surfaces according to the invention fly further; they also feature better stability, which goes to throwing accuracy. (Middleton Dec., ¶8; Stanaway Dec., ¶8; Application, page 8, ¶23; U.S. Publication, ¶23.)

Additionally, gripping surfaces according to the present invention which feature the staggered segments allow the disc to sling off excessive dog saliva when thrown so that the disc is generally less slippery during the competition and thus less prone to causing throwing or catching errors or having aerodynamic performance impeded with undue layers of saliva. (Bloeme Dec. ¶17; Perry Dec. ¶14.)

It goes without saying that grit and dirt in conventional gripping surfaces is undesirable, because, among other things, it impedes throwing, flying and catching performance. (Bloeme Dec., ¶¶13,14; Perry Dec., ¶¶10, 11; Middleton Dec., ¶¶5, 6; Stanaway Dec., ¶¶5, 6; Application, page 2, ¶5; U.S. Publication, ¶5.) Gripping surfaces according to the present invention, because they are low profile, segmented and staggered, alleviate this problem greatly and therefore contribute materially to success in dog and disc competitions. (Bloeme Dec., ¶¶13, 14; Perry Dec., ¶¶10, 11; Middleton Dec., ¶¶5, 6; Stanaway Dec., ¶¶5, 6; Application, page 2, ¶9; page 8, ¶22; U.S. Publication, ¶¶9, 22.)

All of these structural and performance features accrue from the inventors' having been the first to provide a flying disc for canine competition with gripping surfaces as between the flight plate and the rim which features a pattern of low-profile, staggered, noncontinuous segments. Nothing in the references cited in this application show or suggest such gripping surfaces. Applicants accordingly submit for this reason that their claimed discs with such gripping surfaces constitute patentable subject matter.

**Commercial success of discs with the gripping surfaces.** Flying discs which incorporate the gripping surfaces according to the present invention enjoy commercial success. They are now sold through retailers in 28 states and six countries. To date, more than 100,000 of such discs have been sold and they are used in dog and disc competitions in Canada, Japan, Korea and the United States. They are formally recognized by various organizations including Flying Discs Dog Open Unified Frisbee Dog Operations Skyhoundz (the largest canine disc competition in the world). Skyhoundz Japan and Skyhoundz Canada. (Bloeme Dec., ¶19; Perry Dec., ¶16.) The commercial success is directly attributable in considerable part to the gripping surfaces according to the present invention (Bloeme Dec., ¶20; Perry Dec., ¶17.)

**The cited surfacing art.** It does not advance the analysis, much less constitute a showing that the gripping surfaces for flying discs according to the invention are unpatentable, to cite surfaces on hammers, winches, and wild turkey or other game calls, such as those in the references cited by the most recent Examiner's Action. In fact, the bark on a pine tree and surfaces of stone roads built by the Romans resemble, even perhaps more closely in some ways, the pattern of gripping surfaces according to some

aspects of the invention as shown in Figure 2 of the application than the cited surfaces. There can be no dispute that various surfaces have existed on various things for many years, centuries, perhaps eons. Such analysis, however, fails to recognize, among other things, that no one thought to apply the claimed low profile, segmented and staggered patterns as gripping surfaces to flying discs for canine disc competition which are reflected in claims 25-27. Certainly the Examiner's Action makes absolutely no showing whatsoever of any motivation to combine references showing any such surfaces with references showing flying discs to arrive at applicants' claimed discs with gripping surfaces according to the invention. Authority requiring the need for such a showing to establish a prima facie case of obviousness is replete.

**Support.** Support for new claims 25-27 appear in the application at among other places:

- Figures 1A, 1B, 1C and 2.
- Application ¶19, U.S. Publication, ¶19:

In a preferred embodiment, the gripping surfaces are segmented and also are staggered relative to each other. In contrast to conventional discs having series of annular ridges with deep grooves, the gripping surfaces have a low profile and do not readily retain dirt and other foreign matter. These discs should therefore present fewer problems during competition since players should be able to grasp the discs better. The discs are especially well suited for canine since, by retaining less dirt and foreign matter, the gripping surfaces are less likely to damage the dog's mouth. The gripping surfaces are preferably uni-directional and provide a greater frictional force to movement along a radial direction than movement along a tangential direction along the disc.

- Application, ¶22, U.S. Publication, ¶22:

The preferred gripping surfaces 18 are preferably comprised of a low-profile segmented pattern that reduces the tendency of the gripping surface 18 to collect and retain foreign particles, such as dirt and other particulate matter. The gripping surface 18 is furthermore both segmented and staggered, as opposed to being continuous such as the annular ridges and grooves in a typical flying disc, so that any flying particle that might be present on the gripping surface 18 can be easily cleaned and removed. The segmented and staggered gripping surface 18 therefor does not have a tendency to trap foreign matter as is the case with a grooved gripping surfaces employed in many conventional discs.

- Application, ¶23; U.S. Publication, ¶23:

The gripping surfaces 18 offer a number of advantages over disc with other gripping surfaces. For example, as mentioned above, by presenting the gripping surfaces 18 on opposing surfaces of the disc 10, the disc 10 can be more firmly held and thrown than other discs. Also, because the gripping surfaces 18 preferably use a segmented and staggered pattern, foreign material is less likely to be retained on the surfaces 18, thereby reducing the likelihood of damage to a canine's mouth. Furthermore, the gripping surface 18b on the underside of the disc 10 has no significant aerodynamic effect on the disc's 10 flight characteristics since this surface 18b is not subjected to the flow of the relative wind as the disc 10 flies. The gripping surface 18a on the upper side of the disc 10 actually provides an aerodynamic benefit in that it serves as mini-vortex generators, disrupting the flow of air over the disc 10 in such a way as to improve the overall stability of the disc 10 without any meaningful increase in drag.

- Application, ¶24; U.S. Publication, ¶24:

In addition to being segmented, staggered, and having a low-profile, the gripping surfaces 18 are preferably unidirectional. The gripping surfaces 18 are unidirectional in that the surfaces 18 provide a greater frictional force for movement in a radial direction than movement in a tangential direction along the disc



10. The orientation of the pattern forming the gripping surfaces 18 advantageously serve as a gripping surface for the thrower yet are not sized or shaped to retain foreign matter. An example of a preferred texture for the gripping surfaces 18 is shown in FIG. 2. This pattern is provided by Plastic Products Unlimited, Inc. of Austell, Georgia and is texture no. 11375. As is evident from FIG. 2, the texture is comprised of a number of segments that are staggered relative to each other and also are oriented in one general direction. It should be understood that the texture shown in FIG. 2 is just one example and that various other textures or patterns may be used for the gripping surfaces 18.

**Withdrawal of amendment as to "irregular surfaces."** Applicants have withdrawn their request to amend page 9, ¶ 24 of the application, also ¶0024 of the U.S. Publication, to introduce the term "formed of irregular surfaces." This is not because applicants agree with the Examiner's Action on this point. Indeed, among other things, FIG. 2 could be said to show gripping surfaces with this feature (denoted by numeral 18a). Applicants instead withdraw this requested amendment to avoid wasting time on this trivial point and creating the potential of yet additional delay in progressing this application to allowance and issue.

### **CONCLUSION**

Applicants respectfully submit in view of the foregoing that Claims 25-27 define patentable subject matter, and they request that the claims be allowed and a patent issued soon.